

lates four remarkable instances in which it was observed emanating from the human body. In all these cases disease had made deep ravages in the system.

Sir Henry conceives that this phenomenon has the closest analogy to the phosphorescence generated in organic bodies at the period of incipient decomposition, and that a process analogous to decomposition may take place in the human frame whilst yet the living principle remains. Disease implies, he maintains, and with justice, that to a certain extent, however slight that may be, the vital property is impaired and altered, and that unless combated by art, and stayed in its progress by the restorative power implanted in the living system, it will inevitably lead to that condition which gives to the chemical actions the ultimate mastery over the vital; and he believes that while the flame of life flickeringly burns on, the diseased or injured part may be reduced to that state which in animal matter is perfectly analogous to the first and earliest stage of decomposition; and other conditions existing, light may be evolved precisely in the same manner as this phenomenon is produced in the dissecting-room, in burial-grounds, and in marine animals during the early stage of decay. It is not improbable, he adds, that all cases of this kind may ultimately be referred to one common head—to chemical actions in peculiar conditions evolving light through the instrumentality of electrical phenomena.

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ART. XVIII.—*A System of Human Anatomy, General and Special.* By ERASMUS WILSON, M. D., Lecturer on Anatomy, London. American edition, edited by Paul B. Goddard, A. M., M. D., Demonstrator of Anatomy in the University of Pennsylvania, &c. &c. &c., with one hundred and seventy illustrations by Gilbert. From the second London edition. Philadelphia, Lea and Blanchard, 1843, pp. 576, 8vo.

IN our last Number, p. 442, we noticed this excellent and beautiful work, and it is only necessary now, in noticing the American reprint, to say, that in point of beauty, it equals the original, besides being enriched with some additions, both to the illustrations and text, by Dr. Goddard, whose competency for the undertaking is sufficiently well known.

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ART. XIX. *A Treatise on the Diseases of the Eye.* By W. LAWRENCE, F. R. S., Surgeon Extraordinary to the Queen; Surgeon to St. Bartholomew's Hospital and Lecturer on Surgery at that Hospital; Surgeon to Bethlem and Bridewell Hospitals; and late Surgeon to the London Ophthalmic Infirmary. From the last London edition. With numerous additions and sixty-seven illustrations by ISAAC HAYS, M. D., Surgeon to Wills Hospital, Physician to the Philadelphia Orphan Asylum, Member of the American Philosophical Society, &c. &c. &c. Philadelphia, Lea & Blanchard, 1843.

THE treatise of Mr. Lawrence has been for some time before the profession, and as is well observed in the advertisement by the American editor, "the character of the work is too well established to require a word of commendation, being justly considered the best we possess on the subject."

The notes and illustrations, added by Dr. Hays, whose devotion to the study of diseases of the eye peculiarly fitted him for the task of annotating the work, and who, in addition to his own ample experience, has availed himself of the use of important matter, derived from the works of Mr. Mackenzie and others, are extremely valuable; some of these we shall briefly notice.

The anatomy of the eyeball and its appendages, as well as the more important operations, are illustrated in the American edition by wood-cuts, well calculated to convey to the reader correct impressions on these subjects. Speaking of the intimate structure of the iris, the editor states that, the recent experiments of

Prof. Grimelli of Modena corroborate the opinion of Arnold, and concludes "That contrary to the generally admitted opinion on the muscularity of the iris, as it appears to the author, this membrane is composed of a turgescible or erectile vascular tissue, in which arterial vessels predominate."

In the chapter on the formation of an artificial pupil, Dr. Hays has extended and elucidated the account of Maunoir's operation, and given a detailed description of one performed by himself, which cannot strictly be referred to either of the three modes described in the text, and which he calls by *distortion*. This is highly ingenious, and consists in a simple division of about one-fourth of the cornea, near its junction with the sclerotica, and allowing the iris to prolapse, which draws the lower edge of the pupil to the incision, at which point adhesion takes place. He was led to the performance of this operation in the case narrated, by "reflecting upon the general occurrence of prolapse of the iris in wounds of the cornea, with consequent synechia anterior, and drawing aside of the pupil." We have since had an opportunity of seeing him perform the same operation in another case, with the same result.

In the twentieth chapter, some interesting remarks are made upon the inability to distinguish colours, and a case is narrated in which this was not, as usual, a natural defect, but the result of disease, which by appropriate medical treatment was cured.

In the chapter on cataract, Mr. Lawrence has altogether omitted an account of the catoptric examination of the eye, so important in the diagnosis of many affections of this organ. An omission, however, which has been fully supplied by the Editor, who gives us in treating on the physiology of the eye, the rationale of the method of examination, which we need not here notice; the remarks and cases appended to this chapter, illustrative of its value, we think it well to give entire.

"In the diagnosis of cataract, the catoptric examination of the eye affords the most unerring test.

"In the early stages of lenticular cataract the brilliancy and distinctness of the inverted image is diminished, it has no longer a sharp and well defined margin, but its outline appears shaded off. This image gradually fades with the increase of the opacity, and long before the cataract is mature the inverted image is obliterated. The deep erect image is also indistinct in the advanced stages, the anterior surface of the capsule giving only a general reflection.

"In capsulo-lenticular cataract the inverted image fades much earlier than in mere lenticular cataract, a very slight degree of opacity of the capsule sufficing to destroy its function of reflection.

"Among the numerous cases, we have seen, in which we have derived great assistance in our diagnosis from the aid of the catoptric test, we shall relate two which will serve to show its utility and to justify the confidence we repose in it.

"In September, 1839, I was invited by my friend, Dr. G. W. NORRIS, to examine a mulatto man named Peter, in the Pennsylvania Hospital, who was supposed to be affected with glaucoma. The pupils had been dilated by the application of belladonna. There was opacity in both eyes, which was denser in some parts than in others. This opacity seemed more deep seated, than is usual in cataract, and its colour was of a greenish grey. Vision, was, however, quite as good, perhaps better, than might have been supposed from the degree of opacity.

"On holding a lighted candle before the eyes, the three images were visible. The anterior upright image was natural in all respects. The deep seated upright and inverted images were dull, their margins indistinct and of an unusual reddish tint. The inverted image in one eye, disappeared as the candle was moved opposite to the more nebulous portion of the lens, and when the observer looked at the eye of the patient obliquely, the inverted image seemed to have a double point like the letter W. I did not hesitate from these phenomena to pronounce it to be a case of cataract.

"A few days afterwards this man died suddenly, and we were afforded an opportunity of examining his eyes.

"The transparency of both capsules was impaired. A narrow portion of the posterior part of one lens, extending from near the margin to the centre was quite opaque, and on applying a needle to it we found it quite soft so as to be readily removed, leaving a depression. On carefully washing both lenses so as to remove their superficial layers which were softened, as well as partially opaque, the remaining portion was found perfectly transparent and of a beautiful amber colour. This colour was the same whether the lens was viewed by transmitted or reflected light.

"The second case was that of a man named Christian Minster, forty years of age, admitted into Wills Hospital, October 7th, 1841. This man stated that he had recently come from the country, that he had been admitted in one of our public institutions, where he was pronounced to be labouring under cataract, and it was determined to operate upon him; but that being unwilling to submit to this he had eloped. A letter which he showed from his physician in the country, also indicated his disease to be cataract.

"The opacity behind the pupil had certainly a great resemblance to that of cataract. The degree of vision he enjoyed corresponded to the degree of opacity—the independent and associate motions of the iris were tolerably active—and the patient saw best by twilight.

"On applying the catoptric test, however, it was at once found to be a case of amaurosis, and not of cataract. The three images were visible and of their natural appearance. The history of the case led me to ascribe the amaurotic affection to congestion of some portion of the nervous apparatus, and a course of treatment corresponding to this view was directed, consisting of counter-irritation to the back of the neck, purging, stimulating pediluvium, &c. Under this course he improved so rapidly that in a week he could read with one eye a diamond bible. He subsequently had a relapse, but by the application of cups to the head, pustulation with tartar emetic on the back of the neck, and afterwards pyralism, he was completely restored. He was discharged cured in January following."

"The case of Michael McConville, related in the No. of this journal for Nov. 1839, might have been adduced as a further exemplification of the value of this test. This man, who laboured under amaurosis, was four times operated upon for the removal of cataract.

In the chapter on Strabismus, much additional matter has been introduced; Dr. Hays thinks the operation useful when skilfully performed in cases which are judiciously selected, but not so generally successful as we have been led to suppose: he says, "the correctness of this inference will be at once assented to. When it is considered, that such a mania has prevailed among some surgeons for operating, that they have seized upon every case suitable or not, and that almost everywhere, the greater number of cases have fallen under the knife of unprincipled operators, attracted to them by false statements of success widely circulated in the public papers, with the certificates of cases given to them by those whom they had duped."

In the chapter upon fistula lachrymalis, the Editor states, the ordinary operations described in the text, are rarely requisite for the re-establishment of the passage for the tears to the nose; that all cases in which the inflammation has not been so violent as to cause complete obliteration of the nasal ducts, may be cured by recourse to proper methods of dilatation, upon the same principles which would guide us in the treatment of strictures elsewhere. In these remarks he is borne out by the experience of Mr. Travers.

Sufficient has been adduced, to show the nature of the additions made by Dr. Hays, and to authorize us in recommending the work to all those who are desirous of obtaining correct information upon a class of diseases, the proper treatment of which is of the highest importance, but unfortunately by the mass of the profession in this country, almost wholly neglected.

G. F.